

REMARKS

Claims 22, 23, and 26-30 were pending in this application. Claims 22, 23, 29 and 30 have been withdrawn from consideration. Claim 26 has been amended. Thus, as a result of the foregoing amendment, Claims 26-28 are pending.

Claims 26-28 are rejected under 35 U.S.C. §112, first paragraph for non-compliance with the written description requirement. Applicant(s) have respectfully traversed the Examiner's rejection and have amended the claims to recite the sequence identifier for the N terminal amino acid sequence of the human DEC-205 protein. Support for the amendment can be found throughout the specification, but particularly on page 10, lines 20-23 and lines 31-32, continuing onto page 11, lines 1-14; and further on page 56, lines 12-23 and on page 62, lines 26-32 and page 63, lines 1-15.

A declaration under 37 CFR 1.132 has been prepared and is attached herewith to attest to the methods utilized for the preparation of the antibodies of the present invention and for which written description is provided in the specification as filed. The curriculum vitae of Dr. Michel Nussenzweig is also attached herewith as Exhibit A. Based on the foregoing, withdrawal of the rejection is respectfully requested.

In addition, a Substitute Sequence Listing has been submitted herewith in compliance with 37 CFR 1.821-1.825 to be inserted into the instant application to replace the Sequence Listing submitted on April 21, 2004. Applicants request favorable entry of the amendment and Substitute Sequence Listing and favorable further processing of the present application.

No new matter has been entered by way of this amendment.

Claim Rejections under 35 U.S.C. §112, first paragraph

Claims 26-28 are rejected under 35 U.S.C. §112, first paragraph for non-compliance with the written description requirement. The Examiner alleges that the claims recite use of an anti DEC antibody, which binds human DEC-205. The Examiner alleges that the term human DEC-205 would appear to encompass mutants and variants or alleles of said human protein. In addition, the Examiner further alleges that the only human DEC-205 protein disclosed in the specification is that of the amino acid sequence

of Figure 7B. Thus, the Examiner alleges that while the specification discloses a single example of a human DEC-205 protein, the term human DEC-205 would appear to encompass undescribed mutants and variants or alleles of said human protein. The Examiner further alleges that the claims would encompass antibodies which bound undescribed mutants and variants or alleles of human DEC-205. Applicants respectfully traverse the rejection, and have amended claim 26 to read on the N-terminal amino acid sequence of human DEC-205 as taught by the present invention. Applicants respectfully point out to the Examiner that the sequence provided in Figure 7B is a murine DEC-205 sequence. The human DEC-205 amino acid sequences are those provided in SEQ ID NOs: 1 (C terminal) and 2 (N terminal), with the first 19 of the amino acids of SEQ ID NO: 2 being used to prepare the antibodies of the present invention. Furthermore, the first 19 amino acids of SEQ ID NO: 2 are found in the application on page 56, line 14. Applicants respectfully point out to the Examiner that this sequence has been renumbered as SEQ ID NO: 13, since it reflects only the first 19 residues of SEQ ID NO: 2, which as shown in Figure 6, and in the specification on page 10, lines 20-29, are the first 25 amino acids of the N terminal of cloned human DEC-205 protein. A substitute sequence listing in paper and computer readable format, which contains this correction and a Statement in support of the Substitute Sequence Listing are submitted herewith.

With respect to support for the foregoing, the Examiner's attention is drawn to the instant application on page 10, lines 20-23, whereby it states:

"FIGURE 6. N-terminal amino acid sequence of DEC-205, and blotting by polyclonal antibodies. (A) The amino-terminal sequence (SEQ ID NO: 2), as determined by two different core facilities. A peptide spanning the first 19 residues was synthesized and coupled to KLH for use as an immunogen."

Furthermore, the human DEC-205 sequence used for generation of the anti-human DEC-205 antibodies is outlined on page 56, lines 12-23:

"Polyclonal antibodies to the N-terminal peptide-- The hapten-coupling strategy focused on the lone cysteine at residue 19 (Figure 6A). Peptide N1 (SESSGNDPFTIVHENTGKC) (SEQ ID NO: 2) was coupled to keyhole limpet hemocyanin (KLH) and ovalbumin (OVA) using maleimide chemistry (Imject, Pierce). An average of about 250 peptides were conjugated to each molecule of KLH, and about 6

peptides per molecule of OVA. The KLH-peptide conjugate was divided into aliquots of 400-500 Fg each, and was injected eight times into two New Zealand White rabbits (200-250 Fg per injection), again emulsifying into CFA for the initial immunization and IFA for boosts. To remove any anti-KLH reactivity from the sera, they were precleared on a KLH-cysteine column. Anti-peptide antibodies were isolated on a peptide-OVA column, where the peptide was coupled to an irrelevant carrier."

Based on the foregoing, Applicants assert that the specification provides written description for the amino acid sequences of the human DEC-205 protein, in particular the carboxy terminal amino acid sequence of SEQ ID NO: 1, the amino terminal amino acid sequence of SEQ ID NO: 2, and the first 19 amino acids of SEQ ID NO: 2 which were coupled to a carrier molecule and used to inject animals for preparation of anti-DEC-205 antibodies (SEQ ID NO: 13). In addition, Applicants provide further support in a declaration under 37 CFR 1.132, which asserts that the human and mouse sequences provided in the instant application support the written description requirements and are sufficient for one skilled in the art to practice the invention as currently claimed. Furthermore, Applicants assert by way of this declaration that the antibodies generated against the first 19 amino acid residues of the N-terminal of the human DEC-205 peptide of SEQ ID NO: 2, using the methods described in the present application, recognize and bind to the human DEC-205 protein.

In light of the foregoing, Applicants respectfully request withdrawal of the rejection.

Fees

No fees are believed to be required for the present response, but if this is in error, the Commissioner is hereby authorized to charge any fees, or credit any overpayment, to Deposit Account No. 11-1153.

Conclusion

Applicants believe that the foregoing amendments to the claims place the application in condition for allowance. Withdrawal of the rejections and objections is respectfully requested. If a discussion with the undersigned will be of assistance in resolving any remaining issues, the Examiner is invited to telephone the undersigned at (201) 487-5800, ext. 118, to effect a resolution.

Respectfully submitted,



Veronica Mallon, Ph.D.

Agent for Applicant(s)

Registration No. 52,491

KLAUBER & JACKSON
411 Hackensack Avenue
Hackensack, NJ 07601
(201) 487-5800